

What is claimed is:

1. A disk identifying device comprising:

a rotary tray having a plurality of disk placing portions  
on each of which a disk as a recording medium is to be placed  
5 and each of which has an assigned number;

a belt-like portion concentrically formed on a rear surface  
of the rotary tray, the belt-like portion having disk detecting  
holes each corresponding to a position of each of the disk placing  
portions, and reflecting areas each formed between adjacent  
10 disk detecting holes and including slating reflecting faces  
and flat reflecting faces which are divisionally arranged so  
that their arrangement patterns are different for each of the  
assigned numbers of the disk placing portions;

a light emitting element provided behind the rear surface  
15 of the rotary tray for emitting light toward the belt-like portion;

a light receiving element provided behind the rear surface  
of the rotary tray for receiving light reflected from the belt-like  
portion; and

a controller;

20 wherein the controller, in accordance with a disk number  
designating signal, determines whether or not the disk is placed  
on a pertinent disk placing portion according to whether or  
not the light receiving element receives light reflected through  
the disk detecting hole while rotating the rotary tray and emitting  
25 light from the light emitting element, identifies the assigned

number of the pertinent disk placing portion in such a manner that the light receiving element receives patterned light reflected from the reflecting area and corresponding to the arrangement pattern, and stops rotation of the rotary tray to  
5 stop the pertinent disk placing portion at a prescribed position.

2. A disk identifying device comprising:

a rotary tray having a plurality of disk placing portions on each of which a disk as a recording medium is to be placed  
10 and each of which has an assigned number;

a belt-like portion concentrically formed on a rear surface of the rotary tray, the belt-like portion having disk detecting holes each corresponding to a position of each of the disk placing portions, and light-receiving areas each formed between adjacent  
15 disk detecting holes and including light-absorptive color light-receiving faces and light-reflective color light-receiving faces which are divisionally arranged so that their arrangement patterns are different for each of the assigned numbers of the disk placing portions;

20 a light emitting element provided behind the rear surface of the rotary tray for emitting light toward the belt-like portion;

a light receiving element provided behind the rear surface of the rotary tray for receiving light reflected from the belt-like portion; and

25 a controller;

wherein the controller, in accordance with a disk number designating signal, determines whether or not the disk is placed on a pertinent disk placing portion according to whether or not the light receiving element receives light reflected through the disk detecting hole while rotating the rotary tray and emitting light from the light emitting element, identifies the assigned number of the pertinent disk placing portion in such a manner that the light receiving element receives patterned light reflected from the light-receiving area and corresponding to the arrangement pattern, and stops rotation of the rotary tray to stop the pertinent disk placing portion at a prescribed position.

3. A disk identifying device comprising:

15 a rotary tray having a plurality of disk placing portions on each of which a disk as a recording medium is to be placed and each of which has an assigned number;

a belt-like portion concentrically formed on a rear surface of the rotary tray, the belt-like portion having disk presence/absence detecting areas each for detecting the presence/absence of the disk on each of the disk placing portions on the basis of reflected light, and reflected light pattern forming areas each for identifying a position of a pertinent disk placing portion;

25 a light emitting element provided behind the rear surface

of the rotary tray for emitting light toward the belt-like portion;  
and

a light receiving element provided behind the rear surface  
of the rotary tray for receiving light reflected from the belt-like  
5 portion;

wherein rotation of the rotary tray is stopped to stop  
the pertinent disk placing portion at a prescribed position  
in accordance with a disk number designating signal by identifying  
the assigned number assigned to the pertinent disk placing  
10 portion.

4. The disk identifying device according to claim 3, wherein  
the disk presence/absence detecting areas comprised disk detecting  
holes corresponding to positions of the disk placing portions,  
15 respectively; and

the reflected light pattern forming areas comprise  
reflecting areas each formed between adjacent disk detecting  
holes and including slating reflecting faces and flat reflecting  
faces which are divisionally arranged so that their arrangement  
20 patterns are different for each of the assigned numbers of the  
disk placing portions.

5. The disk identifying device according to claim 3, wherein  
the disk presence/absence detecting areas comprised disk detecting  
25 holes corresponding to positions of the disk placing portions,

respectively; and

the reflected light pattern forming areas comprise light-receiving areas each formed between adjacent disk detecting holes and including light-absorptive color light-receiving faces  
5 and light-reflective color light-receiving faces which are divisionally arranged so that their arrangement patterns are different for each of the assigned numbers of the disk placing portions.

10 6. The disk identifying device according to claim 4, further comprising a controller which determines whether or not the disk is placed on the pertinent disk placing portion according to whether or not the light receiving element receives light reflected through the disk detecting hole while rotating the  
15 rotary tray and emitting light from the light emitting element, and which identifies the assigned number of the pertinent disk placing portion in such a manner that the light receiving element receives patterned light reflected from the reflecting area.

20 7. The disk identifying device according to claim 5, further comprising a controller which determines whether or not the disk is placed on the pertinent disk placing portion according to whether or not the light receiving element receives light reflected through the disk detecting hole while rotating the  
25 rotary tray and emitting light from the light emitting element,

and identifies the assigned number of the pertinent disk placing portion in such a manner that the light receiving element receives patterned light reflected from the light-receiving area.